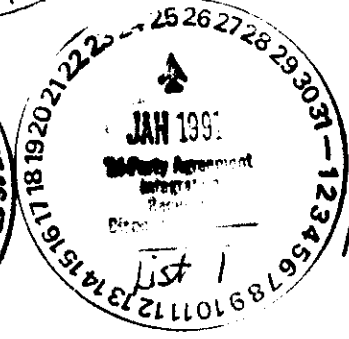
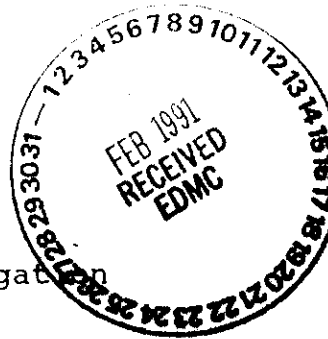
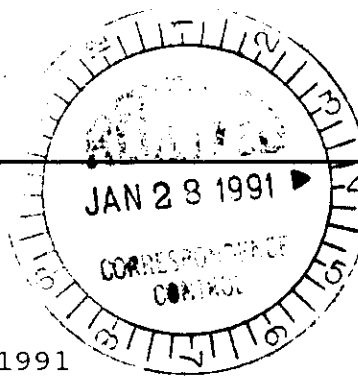




START

Robert K. Stewart
Unit Manager
U.S. Department of Energy
P.O. Box 550, A6-95
Richland, Washington 99352

January 23, 1991



REL/RDW/
TMW

Re: 1100-EM-1 Remedial Investigation

Dear Mr. Stewart:

The Environmental Protection Agency (EPA) is reviewing the Department of Energy (DOE) responses to our comments on the Supplemental Work Plan for the 1100-EM-1 Operable Unit. While we have not finished our review, it has become clear that there are issues upon which DOE needs to take action prior to finishing our review. To ensure that these actions are given prompt attention, provide this office with the deliverables as identified in the items below.

1. Baseline Risk Assessment. The baseline risk assessment for this operable unit was documented in the Phase I Remedial Investigation Report. It did not evaluate a residential exposure scenario. An estimate of the reasonable maximum exposure (RME) was not included, contrary to both Risk Assessment Guidance for Superfund (EPA/540/1-89/002) and the National Contingency Plan (40 CFR 300). The toxicity screening technique used in the Remedial Investigation report has not been proven to be valid or protective of human health and the environment. This technique should not be used. Results of the baseline risk assessment were used to refine the contaminants of concern list for this operable unit and to recommend where further work was or was not required within the unit. Because the results of the baseline risk assessment are inadequate, the recommendations based on those results cannot be supported. A revised baseline risk assessment that evaluates residential and agricultural exposure scenarios, does not use the toxicity screening technique, and estimates the RME must be submitted to this office.

Note that evaluation of a residential exposure scenario for this operable unit does not commit DOE to remediation options necessary for residential land use, but provides information necessary to make an informed risk-management

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decision. Further, it should be noted that a residential exposure scenario may not be appropriate for all operable units at the Hanford Site.

2. Groundwater Investigation in the Horn Rapids Landfill (HRL) Vicinity. The DOE proposes to cease groundwater investigation in the HRL area, part of the Hanford 1100-EM-1 operable unit. This is in conflict with the Hanford Federal Facility Agreement and Consent Order (Agreement) wherein the DOE committed to investigate and clean up hazardous substances at the Hanford Site. The definition of facility in CERCLA § 101(9) includes "...any site or area where a hazardous substance has... come to be located". There is no question that there are hazardous substances in DOE's groundwater area beneath the HRL. As owner, DOE is liable for the investigation and cleanup of that facility.

If DOE wishes to pursue the participation or contribution by other potentially responsible parties (PRP's), it is advisable that these parties be notified as soon as possible. **Provide this office with information copies of any Notice Letters sent to PRP's under CERCLA.**

3. Vadose Zone Investigation at the Discolored Soil Site (1100-6). The 1100-EM-1 Supplementary RI/FS Work Plan, proposes a vadose zone investigation for the 1100-6 site that is also in the currently approved work plan (Refer to DOE/RL 88-23, Sect. 4.4.1.5, p. 4-55., August 1989). The vadose zone investigation as described in the approved work plan must be completed. **Provide this office with notification that field work has started at this location. This notification shall include the schedule to complete the sampling and analysis.**
4. Geophysical Investigation at the HRL. The RI/FS Work Plan (DOE/RL 88-23, Section 4.4.1.6, p. 4-56) stated that 100 foot transects would be utilized in the geophysical investigation, with smaller transects to be used to further characterize known or suspected waste deposits. Specifically, the smaller transects would be used to determine if the waste deposits included alleged buried, containerized liquids and to optimize soil boring locations by minimizing any potential for boring through buried, containerized liquids. Follow-up geophysical investigations were not performed on transects smaller than 100 feet. It follows that DOE believed the geophysical work performed was adequate.
5. Vadose Zone Investigation at the Horn Rapids Landfill. DOE did not implement the vadose zone investigation of the HRL as described in the RI/FS Work Plan, approved in August 1989

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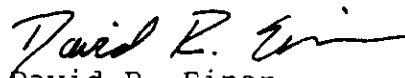
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in accordance with the Hanford Federal Facility Agreement and Consent Order. Specifically, Section 4.4.1.6, page 4-58, and Figure 4-12, page 4-59, state that DOE will bore vadose zone holes in known or suspect disposal locations in the HRL. In conflict with the Work Plan, DOE intentionally located the vadose zone borings outside of the disposal locations, later claiming that the possibility of drilling through buried, containerized liquids precluded boring the holes as required. However, since DOE did not continue the geophysical investigation (as described in Item 4 above), it must be assumed that DOE believed there were no buried, containerized liquids and therefore no safety concerns. The vadose zone investigation as described in the approved work plan must be completed immediately. **Provide this office with notification that field work has started at this location. This notification shall include the schedule to complete the sampling and analysis.**

The DOE has not complied with the terms of the approved RI/FS Work Plan. As you know, this work plan was approved by the EPA on August 18, 1989, without objection by DOE. DOE has now refused to perform (Reference DOE's Responses to EPA Comments on the Supplemental Work Plan, dated December 18, 1990) the necessary work which was agreed to by DOE and EPA. Continued refusal to perform the necessary work in a timely manner may be construed to be a "failure", as described in Paragraph 63 of the Agreement. Failure, as described in Paragraph 63, may result in assessment of CERCLA stipulated penalties.

It is imperative that the Department of Energy take immediate steps to comply with the approved RI/FS Work Plan. If you have any questions, please do not hesitate to call me at (509) 376-3883. In addition, questions relating to the legal interpretation of the Agreement may be directed to Andy Boyd, Assistant Regional Counsel, at FTS 399-1222, or (206) 553-1222.

Sincerely,



David R. Einan
Unit Manager

cc: A. Boyd, EPA
G. Hofer, EPA
L. Goldstein, Ecology
L. Powers, WHC
Administrative Record (1100-EM-1 Operable Unit)

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Correction: Concentrations of Radionuclides Detected in 116-K-1 and 116-K-2 Waste Site Surface Soils for the 1987 Environmental Surveillance Report

3-23 Correction: Change "Upstreat" to "Upstream"

3-24 Correction: Change "Nonradioilological" to "Nonradiological"

3-33 As written: Selected Action-Specific Potential Applicable or Relevant and Appropriate Requirements

Correction: Potential Location Specific ARARs

4-2 As written: Analytical Levels for the 100-KR-4 Work Plan

Correction: Analytical Levels for the 100-KR-4 Operable Unit Work Plan

4-3 As written: Data Collection Types, Measurements, and Required Analytical Levels for the 100-KR-4 Operable Unit

Correction: Data Types, Measurements and Required Analytical Levels for the 100-KR-4 Operable Unit

5-1 As written: Proposed Soil Chemical and Physical Property Analysis

Correction: Proposed Soil Chemical Analysis

5-2 As written: Short and Extensive List of Analytical Parameters

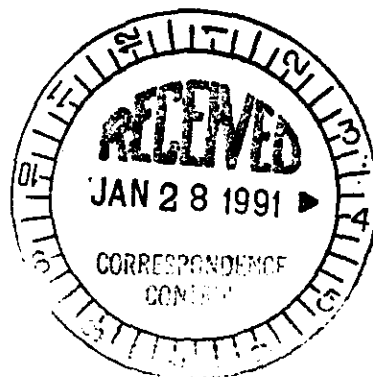
Correction: Short and Extensive List of Analytical Parameters for Ground and Surface Water

5-4 Correction: Change "Physicochemical" to "Physiochemical"

Some page numbers from the Table of Contents do not correspond with their respective page numbers in the text. The page numbers should be changed to correspond with the tables in the text (for example "WP 2T-2" should be changed to "WP 2T-2a," etc.).

Author DR Einar/USEPA	Addressee RK Stewart/DOE-RL	Incoming Correspondence No. 9100263
Subject 1100-EM-1 Remedial Investigation		

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